DN GSIE 8803US
Amendment Dated December 6, 2004
Reply to Office Action of September 8, 2004

<u>REMARKS</u>

Claims 1-22 are pending. Claims 1-22 are rejected. Claims 17-20 are objected to.

Claims 1, and 11-21 are amended herein. Claims 23-35 have been added.

<u>Amendment to Description.</u>

Paragraph [0017] has been amended to reflect the continuous heating of the afterburner

by the exhaust gas stream while the exhaust gas stream is at least 900°F. This amendment

contains no new matter because this function is inherent in the function of the device as

originally disclosed. The MPEP states,

> "By disclosing in a patent application a device that inherently performs a function or has
> a property, operates according to a theory or has an advantage, a patent application
> necessarily discloses that function, theory or advantage, even though it says nothing
> explicit concerning it. The application may later be amended to recite the function,
> theory or advantage without introducing prohibited new matter." *In re Reynolds*, 443
> F.2d 384, 170 U.S.P.Q. 94 (CCPA 1971); *In re Smythe*, 480 F.2d 1376, 178U.S.P.Q. 279
> (CCPA 1973).

MPEP § 2163.07(a).

Therefore, Applicant requests that the amendment to the description be entered.

<u>Claim Objections.</u>

Claims 17-20 are objected to because the word "afterburner" should read "exhaust gas

recirculation valve". Claims 17-20 (as well as claims 12-16) have been amended to recite

"exhaust gas recirculation system" to be consistent with claim 11. Therefore, Applicant requests

that the objection to these claims be withdrawn.

Page 8 of 14

DN GSIE 8803US
Amendment Dated December 6, 2004
Reply to Office Action of September 8, 2004

Rejection of Claims 1, 6, 8-11, and 17-20 Under 35 U.S.C. §102.

Claims 1-21 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Pat. No.

6,530,366 to *Geiger*.

Claims 1 has been amended to include a screen "wherein the exhaust gas stream heats

the screen to a temperature sufficient to burn the particles." By contrast, *Geiger* describes a filter

element 4 comprised of steel mesh 12, which is cleaned by electrically connecting the steel mesh

12 to a voltage source for heating. Col. 3 lines 22-31, FIGS. 2 and 3. Alternatively, Geiger

describes an easy-change filter 16 which is not cleaned, but replaced.

The MPEP states,

"A claim is anticipated only if each and every element as set forth in the claim is found,
either expressly or inherently described, in a single prior art reference." *Verdegaal Bros.
V. Union Oil Co. of California*, 814 F.2d 628, 631 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir.
1987).

MPEP § 2131.

Since *Geiger* fails to describe a screen "wherein the exhaust gas stream heats the screen

to a temperature sufficient to burn the particles" applicant submits that *Geiger* does not suggest

or disclose at least one element specifically required by independent Claim 1 and, thus, is not

anticipated by *Geiger*. Therefore, Applicant requests that the rejection of Claim 1 U.S.C. §102

(b) be withdrawn.

Claims 2-10 depend from base Claim 1, and therefore, incorporate all of the subject

matter of Claim 1. Because a dependent claim cannot be anticipated if the independent claim

Page 9 of 14

DN GSIE 8803US
Amendment Dated December 6, 2004
Reply to Office Action of September 8, 2004

from which it depends is not anticipated, all other dependent claims of the present application must also be found unanticipated. Since applicant submits for the aforementioned reasons that Claim 1 is patentable over *Geiger*, applicant also submits that Claims 2-10 are patentable over *Geiger* for the same reasons. Therefore, applicant requests that the rejection of Claims 1-10 be withdrawn.

Likewise, Claims 11 has been amended to include a screen "wherein the exhaust gas stream heats the screen to a temperature sufficient to burn the particles." As discussed above, *Geiger* describes a filter element 4 heated by electrically connecting steel mesh 12 to a voltage source. Since *Geiger* fails to describe a screen "wherein the exhaust gas stream heats the screen to a temperature sufficient to burn the particles." applicant submits that *Geiger* does not suggest or disclose at least one element specifically required by independent Claim 11 and, thus, is not anticipated by *Geiger*. Therefore, Applicant requests that the rejection of Claim 11 U.S.C. §102 (b) be withdrawn.

Claims 12-20 depend from base Claim 11, and therefore, incorporate all of the subject matter of Claim 11. Because a dependent claim cannot be anticipated if the independent claim from which it depends is not anticipated, all other dependent claims of the present application must also be found unanticipated. Since applicant submits for the aforementioned reasons that Claim 11 is patentable over *Geiger*, applicant also submits that Claims 12-20 are patentable over *Geiger* for the same reasons. Therefore, applicant requests that the rejection of Claims 12-20 be withdrawn.

Page 10 of 14

DN GSIE 8803US
Amendment Dated December 6, 2004
Reply to Office Action of September 8, 2004

Rejection of Claims 1-22 Under 35 U.S.C. §103.

Claims 1-21 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat.

No. 6,530,366 to *Geiger*. Applicant respectfully traverses the Examiner's rejection of those

Claims under 35 U.S.C. § 103.

Specifically, Applicant believes the Examiner has not established a *prima facie* case of

obviousness as required under patent law and in accordance with the Manual of Patent

Examining Procedure ("MPEP"). The MPEP states,

> "To establish a *prima facie* case of obviousness, three basic criteria must be met. First,
> there must be some suggestion or motivation, either in the references themselves or in the
> knowledge generally available to one of ordinary skill in the art, to modify the reference
> or to combine reference teachings. Second, there must be a reasonable expectation of
> success. Finally, the prior art reference (or references when combined) must teach or
> suggest all of the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438
> (Fed., Cir 1991) See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these
> criteria."

MPEP § 706.02(j) (emphasis added). The MPEP also states,

> "To establish *prima facie* obviousness of a claimed invention, all the claim limitations
> must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q.2d
> 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability
> of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494,
> 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any
> claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596
> (Fed. Cir. 1988)."

MPEP § 2143.03 (emphasis added).

As noted above, there is at least one element specified in independent Claims 1 and 11

that is not suggested, disclosed, or claimed at all in *Geiger*. As indicated by the excerpts from

DN GSIE 8803US
Amendment Dated December 6, 2004
Reply to Office Action of September 8, 2004

the MPEP cited above, establishing a *prima facie* case of obviousness requires that "the prior art reference (or references when combined) must teach or suggest all of the claim limitations." (Emphasis added.) Because *Geiger* does not disclose a screen "wherein the exhaust gas stream heats the screen to a temperature sufficient to burn the particles." Applicant submits that *Geiger* does not suggest or disclose at least one element specifically required by independent Claims 1 and 11, and therefore, the Examiner fails to establish a *prima facie* case of obviousness against independent Claim 1 or Claim 11.

It is noted that independent Claim 1 forms the basis for all dependent Claims 2-10, and independent Claim 11 forms the basis for dependent Claims 12-20. Because a dependent claim cannot be obvious if the independent claim from which it depends is not obvious, all claims depending from Claims 1 and 11 must also be found nonobvious because all dependent claims of the present application depend from either independent Claim 1 or 20, each of which specifies an element not suggested or disclosed in *Geiger*.

Claims 21 has been amended to include the step of "heating a perforate afterburner with an exhaust gas stream to a temperature high enough to burn large particles ..." As discussed above, *Geiger* describes a filter element 4 heated by electrically connecting steel mesh 12 to a voltage source. Since *Geiger* fails to describe a method of "heating a perforate afterburner with an exhaust gas stream to a temperature high enough to burn large particles" applicant submits that *Geiger* does not suggest or disclose at least one element specifically required by independent Claim 21 and, therefore, the Examiner fails to establish a *prima facie* case of obviousness against

Page 12 of 14

DN GSIE 8803US
Amendment Dated December 6, 2004
Reply to Office Action of September 8, 2004

independent Claim 21 or Claim 22. Therefore, Applicant requests that the rejection of Claim 21

and 22 U.S.C. §103 (a) be withdrawn.

In light of the above, Applicant therefore respectfully requests that the Examiner

withdraw the rejection of Claims 2-5, 12-16 and 21-22 as being obvious under 35 U.S.C. § 103.

New Claims 23-35.

Claims 23-35 have been added. None of the references of record, either independently or

in combination, teach or suggest the claimed subject matter of Claims 23-35. Therefore,

applicant submits that Claims 23-35 constitute allowable subject matter and should be favorably

considered by the Examiner, and applicant requests that a timely Notice of Allowance be issued

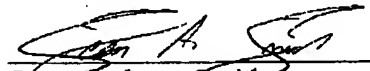for those Claims.

Conclusion.

Applicant believes the above analysis and the amendments made herein overcome all of

the Examiner's objections and all of the Examiner's rejections of Claims 1-21 and that Claims 1-

21 are in condition for allowance. In addition, Applicant believes new claims 23-34 to be in

condition for allowance. None of the references of record, either independently or in

combination, teach or suggest the claimed subject matter. Therefore, applicant submits that

Claims 1-34 constitute allowable subject matter and should be favorably considered by the

Examiner, and applicant requests that a timely Notice of Allowance be issued for those Claims.

Page 13 of 14

DN GSIE 8803US
Amendment Dated December 6, 2004
Reply to Office Action of September 8, 2004

The Commissioner is hereby authorized to charge any additional fees or credit

overpayment under 37 CFR 1.16 and 1.17 which may be required by this paper to Deposit

Account 162201.

Respectfully submitted,

Date: December 6, 2004

Scott Anthony Smith,
Registration No. 46,067
POLSTER, LIEDER, WOODRUFF & LUCCHESI, L.C.
12412 Powerscourt Drive, Suite 200
St. Louis, MO 63131-3615
Telephone: (314) 238-2400
Facsimile: (314) 238-2401

Page 14 of 14